A Science-Based Approach to Prioritizing and Conserving Estuary Habitats in British Columbia

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Estuaries in British Columbia comprise less than 3% of the province's coastline, but these productive and diverse habitats are seasonally important to a variety of species. Despite their importance and rarity, over 50% of the province's estuaries are threatened by coastal development, modification, and pollution. Effective conservation of estuaries requires the achievement of two long-term goals: a) an objective, landscape-level scientific assessment to identify important areas for sustaining populations, and b) timely and efficient allocation of resources to conserve sites. In 2004, the Pacific Estuary Conservation Program identified and mapped 442 of B.C.'s estuaries using standardized criteria and GIS tools. The project provided a landscape overview of estuary habitats that could link with existing biophysical data/attributes to assist conservation planning. Relevant data were assembled and analyzed to rank each of the sites for their biological importance. We discuss the methods used to assign rankings, and the utility of using this approach to prioritize habitats. The rankings will also incorporate land-use status of estuaries to address socio-economic factors of importance to decision-making. Such an integrated assessment will further assist conservation agencies in directing resources toward site-specific habitat securement or restoration activities, or toward further population/habitat monitoring where existing data are deficient.